New News regarding Mosquito Misting Systems as of January 2, 2007

American Mosquito Control Association (AMCA) Position Statement on Mosquito Misting Systems

The American Mosquito Control Association (AMCA) has a number of concerns with the sale of outdoor time-released insecticide misting systems to homeowners and businesses as a means to control mosquitoes. The number of websites advertising the sale and installation of these systems appears to be growing. Some developments are even advertising home sites pre-plumbed for these systems. These systems utilize various synergized formulations of natural pyrethrins or synthetic pyrethroids that are dispensed into the environment at intervals determined by the user. Some systems also utilize minimum risk, FIFRA-exempt pesticides to control or repel mosquitoes.

The position of the AMCA is that the practice of dispensing pesticides at predetermined intervals without surveillance data guiding the treatment is not consistent with the sound Integrated Mosquito Management practices that underlie our valued partnership with the Environmental Protection Agency in the Pesticide Environmental Stewardship Program. We are concerned that application of pesticides through these misting systems will have several undesirable effects.

1. **Unnecessary insecticide use.** Users of these systems would not commonly have the resources to monitor the local mosquito species and density, or to evaluate the other parameters used to establish control thresholds in professional mosquito control operations. Thus, timed space sprays may result in needless insecticide applications, leading to increased costs to the consumer and potentially adverse environmental impacts.

2. **Lack of efficacy data.** Other than testimonials, a historically unreliable source, there is little to demonstrate that these systems actually serve to control mosquito populations even when using demonstrably toxic insecticides. Furthermore, other materials marketed for use in these systems such as cedarwood oil, garlic and other "natural" products by law do not have to prove their efficacy to any regulatory agency.

3. **Non-target impacts.** Timed-release sprays will negatively impact beneficial insect populations and other non-target organisms on site and through uncontrolled off-site drift.

4. **Promotion of insecticide resistance.** The indiscriminate application of pyrethrins will continually select for resistance to the whole pyrethroid class of mosquitocides, all of which utilize the same fundamental mode of action. The synthetic pyrethroids currently play an essential role in the mosquito adulticiding component of integrated mosquito management programs that manage resistance formulation through rotation of pesticides of different modes of action and other methods. The potential loss of these compounds from our suite of control methods, resulting from widespread development of resistance, would seriously compromise our capability to control adult mosquito populations responsible for disease transmission or severe annoyance.

5. **Risk of pesticide exposure.** It appears that safeguards to minimize the risk of direct contact with pesticide sprays by residents are lacking from many of these systems. Pyrethrins, though relatively safe compounds, bear the signal word "Caution" on the label, and the precautionary statements indicate that they may be harmful if inhaled. Labels also advise that pets and birds be removed and aquaria covered before spraying. Assuring homeowner compliance with these stipulations would be difficult, given that application of the pesticides is automated and can be overridden by the homeowner by means of wireless remote.

6. **Incompatible with integrated pest management practices.** The level of hands-off, automated control these systems promise may result in homeowners neglecting to use other methods to reduce local mosquito populations – even if encouraged by the installation technician. Practices such as removing mosquito larval habitats from the property or using personal repellents are essential to reducing human/mosquito contact. Neglecting these practices would, in turn, increase reliance upon the use of broadcast adulticides and propagate the unsound, one-dimensional approach to mosquito control these systems provide.

Many of these problems are currently being addressed by a formal consortium of stakeholders, regulators and mosquito control experts. Best management practices and advertising guidelines are being developed that will bring these systems more in conformance with acceptable mosquito control methods. Nonetheless, until misting systems are reconfigured so that surveillance drives the application, efficacy is demonstrated and drift is minimized, AMCA believes they are not consistent with sound practices to promote public and environmental health and should be discouraged.